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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,636	11/13/2003	Mark E. Pecan	CS21931RL	8979
20280	7590	09/13/2005	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			HUYNH, CHUCK	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,636

Applicant(s)

PECEN ET AL.

Examiner

Chuck Huynh

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3,11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is incomplete and does not fully disclose a definite limitation.

Regarding claim 11, it is indefinite of what applicant mean by "background data", which is interpreted as large data blocks in light of the specification on page 16, and is rejected below accordingly.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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2. Claim 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Forssell et al. (hereinafter Forssell US 6683860).

Regarding claim 1, Forssell (US 6683860) discloses a method of operating a mobile communication device, comprising the steps of:

transmitting over-the-air that a virtual bearer mode of operation is supported (Col 9, lines 30-31, 23-26; Col 3, lines 56-67 – Col 4, lines 1-6);
receiving a response (Col 9, lines 26-29); and
selectively operating in a virtual bearer mode depending upon the response (Col 9, lines 16-47).

Regarding claim 9, Forssell's (US 6665280) discloses a method of operating a communication system including a network element, comprising the steps of:

determining that a virtual bearer is required on the downlink (Col 2, lines 39-54);
and
transmitting the virtual bearer type (Col 8, lines 53-67 – Col 9, lines 1-53; Table 2 and 3).

3. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Landais et al. (hereinafter Landais).

Regarding claim 16, Landais discloses A method of operating a mobile communication device, comprising:

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storing at least one frame of a communication signal received from a network (data transfer in progress) (Page 2, [0029-0030]);
and applying flow control to the lower layers in a virtual bearer (Page 4, [0066-0067]) responsive to a determination that a cell change is imminent (Page 2, [0029-0030]).

4. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Chow et al. (hereinafter Chow).

Regarding claim 17, Chow discloses a method of operating a mobile communication device, comprising:

receiving a downlink streaming signal at a first data rate (Col 5, lines 40-44); and outputting the signal at a slower rate during at least a portion of the transmission (Col 5, lines 54-60).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell (US 6683860) in view of Forssell (US 6665280).

Regarding claim 2 Forssell (US 6683860) discloses the method according to claim 1, wherein the mobile device includes a first controller maintaining the integrity of the radio link (RLC) (Col 3, lines 12-13; Fig. 2, no.202) and a second controller converting between over-the-air and internal forms (LLC) (Col 3, line 14; Fig. 2, no.204), and communicating between the first controller and the second controller independently (direct communication) of the virtual bearer in a transparent mode (Fig.2 connection between no. 202 and 204).

Forssell (US 6683860) discloses all the particulars of the claim except wherein said step of selectively operating includes communicating between the first controller and the second controller via a virtual bearer in the virtual mode.

However, Forssell (US 6665280) does disclose the limitation wherein said step of selectively operating includes communicating between the first controller (RLC) and the second controller (LLC) via a virtual bearer in the virtual mode (Col 6, lines 58-67; Fig. 3).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Forssell's (US 6665280) disclosure to further facilitate data between the RLC and the LLC.

Regarding claim 4, Forssell (US 6665280) discloses a mobile communication device, comprising:

a radio link controller coupled to lower layers (Col 8, lines 40-52);

wherein the virtual bearer is operative to apply flow control to the lower layers in order to maintain a predetermined queue state target (data packets being prioritized) (Col 8, lines 25-35); and

a logical link controller coupled to the virtual bearer for receiving logical link controller frames from the logical link controller (Fig. 3, no. 265; Col 6, lines 24-55).

Forssell (US 6665280) discloses all the particulars of the claim except a virtual bearer including a buffer storing at least one logical link controller frame of a communication signal.

However, the functionality of claimed virtual bearer is performed by the TBFs in Forssell's (US 6665280) disclosure (Col 8, lines 40-52). Since the TBFs can communicate data individually, no buffer is need; however, a memory buffer such as disclosed in Col. 4, lines 33-38 can be combined.

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a memory buffer to temporary store data packets (Col 2, line 17; Col4, lines 33-38)

7. Claim 5-8, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell (US 6665280) in view of Landais et al. (hereinafter Landais).

Regarding claim 5, Forssell (US 6665280) discloses a mobile communication device, comprising;

a radio link controller coupled to lower layers (Col 8, lines 40-52);

a logical link controller coupled to the virtual bearer for receiving logical link controller frames there from (Fig. 3, no. 265; Col 6, lines 24-55).

Forssell (US 6665280) discloses all the particulars of the claim except a virtual bearer including a buffer storing at least one logical link controller frame of a communication signal; and

wherein the virtual bearer is operative to apply flow control to the lower layers and is responsive to a determination that a cell change is imminent.

However, the functionality of claimed virtual bearer is performed by the TBFs in Forssell's (US 6665280) disclosure (Col 8, lines 40-52). Since the TBFs can communicate data individually, no buffer is need; however, a memory buffer such as disclosed in Col. 4, lines 33-38 can be combined.

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a memory buffer to temporary store data packets (Col 2, line 17; Col4, lines 33-38).

Furthermore, Landais does disclose wherein the virtual bearer is operative to apply flow control to the lower layers and is responsive to a determination that a cell change is imminent (Page 1, [0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Landais' disclosure to provide a cell changing mean for communication.

Regarding claim 6, Landais discloses the mobile communication device as defined in claim 5, wherein the determination is received from a network (Page 1, [0025]).

Regarding claim 7, Landais discloses the mobile communication device as defined in claim 5, wherein the determination is made by the mobile (Page 1, [0025]).

Regarding claim 8, Landais discloses the mobile communication device as defined in claim 7, wherein the determination is made using a predictive algorithm (page 1, [0025]).

Regarding claim 14, Forssell's (US 6665280) discloses a method of operating a communication system including a network element, comprising the steps of:

determining that a virtual bearer is required on the downlink (Col 2, lines 39-54).

Forssell's (US 6665280) discloses all the particulars of the claim like over-dimensioning the downlink (increasing downlinks by creating my TBFs for DL transfer Col 2, lines 29-49; Col 8, lines 46-48) but does not disclose the cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

However, Landais does disclose a cell changing selection process of a mobile during data transfer (Page 1, [0019-0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Landais's disclosure of a cell changing process to provide better connection.

Regarding claim 15, Landais discloses the method of claim 14, further including the step of not over- dimensioning the downlink signal to accommodate a cell change by the mobile during a background bearer type of virtual bearer mode operation (Page 2, [0029-0030]). It is disclose that the downlink is interrupted and therefore not being over- dimensioning.

8. Claim 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Golden et al. (hereinafter Golden).

Regarding claim 10, Forssell's (US 6665280) discloses all the particulars of the claim except the method of claim 9, wherein the step of transmitting includes transmitting an indication of a streaming bearer type for streaming data.

However, Golden does disclose transmitting includes transmitting an indication of a streaming bearer type for streaming data such as video or audio (Abstract; Col 8, lines 50-62; Col 24, lines 45-46).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Golden's disclosure to provide specific requested content to users.

Regarding claim 11, Forssell's (US 6665280) discloses all the particulars of the claim but is not clear on the method of claim 9, wherein the step of transmitting includes

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transmitting an indication of background bearer type for background data transmission (interpreted as large data blocks).

However, Golden does clear disclose the transmission of large data blocks (Col 8, lines 59-60).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Golden's disclosure to provide large data transfer request by users.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Forssell's (US 6683860).

Regarding claim 12, Forssell's (US 6665280) discloses all the particulars of the claim but is unclear on the method of claim 9, wherein the step of transmitting includes transmitting an indication of no virtual bearer for interactive data.

However, Forssell (US 6683860) does disclose the fact that the system is able to communicate that there is not virtual bearer (TBF) for data transfer then a new TBF is created for data transfer (Col 5, lines 41-43).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Forssell's (US 6683860) disclosure to provide communicate the need to establish a connection for communication.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Golden in further view of Landais.

Regarding claim 13, Forssell's (US 6665280) discloses all the particulars of the claim like over-dimensioning the downlink (increasing downlinks by creating my TBFs for DL transfer Col 2, lines 29-49; Col 8, lines 46-48) but does not disclose the cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

However, Landais does disclose a cell changing selection process of a mobile during data transfer (Page 1, [0019-0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Landais's disclosure of a cell changing process to provide better connection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to Reference Cited Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuck Huynh


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